

ELEMENT 724: RHODE ISLAND DROUGHT MANAGEMENT PLAN

01 INTRODUCTION

In recognition of the worsening drought conditions during late 2001 and early 2002, the State Planning Council adopted this plan as an element of the State Guide Plan on March 14, 2002 in accordance with its Rule 13:Emergency Procedures. Following a public hearing held on May 2, 2002, and revision of the plan to reflect input and comments received, the Council re-affirmed its adoption of the plan on June 13, 2002.

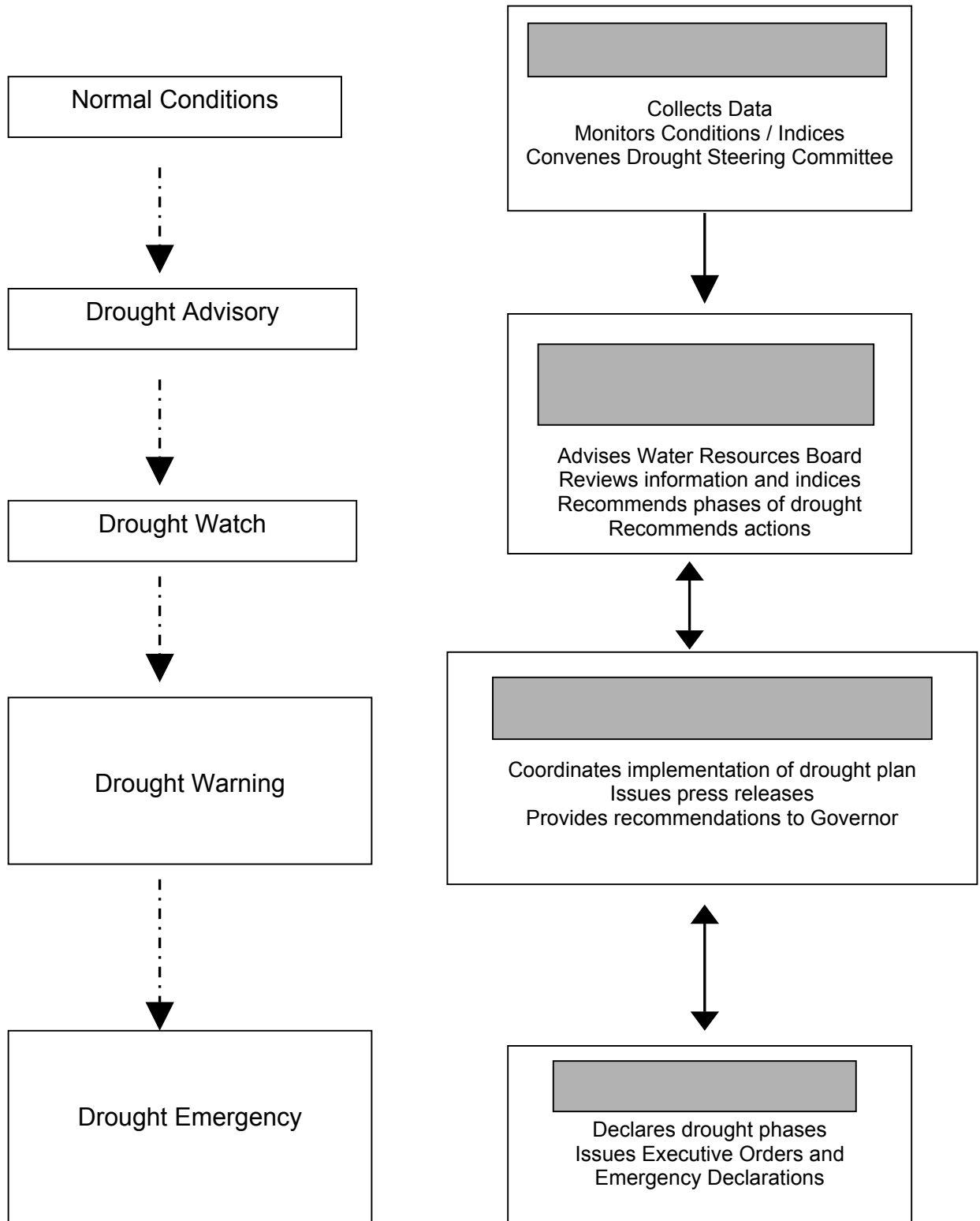
The purpose of this plan is to establish coordinated procedures for the State of Rhode Island's response to severe drought episodes. It outlines the responsibilities of state; federal and local entities involved in water resources management, and define the roles these key entities are to play in the state's response to a long-term drought. Duties related to data gathering, anticipation of drought conditions and mitigation of the effects of drought are described. Policies and recommendations addressing the need to anticipate drought conditions respond early and coordinate resources to effectively manage the state's water resources during a drought are established. The Plan was prepared with a Long-term Drought Management Task Force comprised of representatives from all state agencies with responsibility for the management of water resources, public and private water suppliers, environmental organizations, economic groups, federal agencies, local universities and the National Weather Service.

02 ISSUES ADDRESSED

Drought is a natural hazard that evolves over months or even years, affects a specific area or an entire spatial region, and causes little structural damage. Generally, a drought can be defined as a continuous period of time in which rainfall is significantly below the norm for a particular area. This period of time could be as short as one summer, or as long as several years. Although the State of Rhode Island is often considered a "water-rich" state, it can experience extended periods of dry weather, from single season events to multi-year events such the long-term drought of the mid-1960s.

The primary responsibility for coordination of the drought management process and implementation of this plan rests with the Water Resources Board, as advised by a Drought Steering Committee. (See Figure 724-(3), Rhode Island Drought Management Process.) The Drought Steering Committee is convened by the Water Resources Board and includes agencies which routinely collect and monitor data critical to assessing drought phases in the State, as well as federal and state agencies, local water suppliers, and community officials. The Water Resources Board is responsible for maintaining a current membership/contact list, monitoring conditions, convening the Drought Steering Committee, and recommending to the Governor to declare the appropriate phases of drought.

Figure 724-(3)
Rhode Island Drought Management Process



The Plan defines five phases of drought consistent with the Drought Watch/Warning System of the National Weather Service; 1. Normal 2. Advisory 3. Watch 4. Warning and 5. Emergency. The Drought Steering Committee will recommend phases for the state based on hydrological and meteorological indices. The Water Resource Board will advise the Governor of the need to set the appropriate phase of drought. Exceeding the threshold of a particular phase establishes grounds for recommending moving to the next phase. Each phase requires increased action and coordination by the Water Resources Board as advised by the Drought Steering Committee.

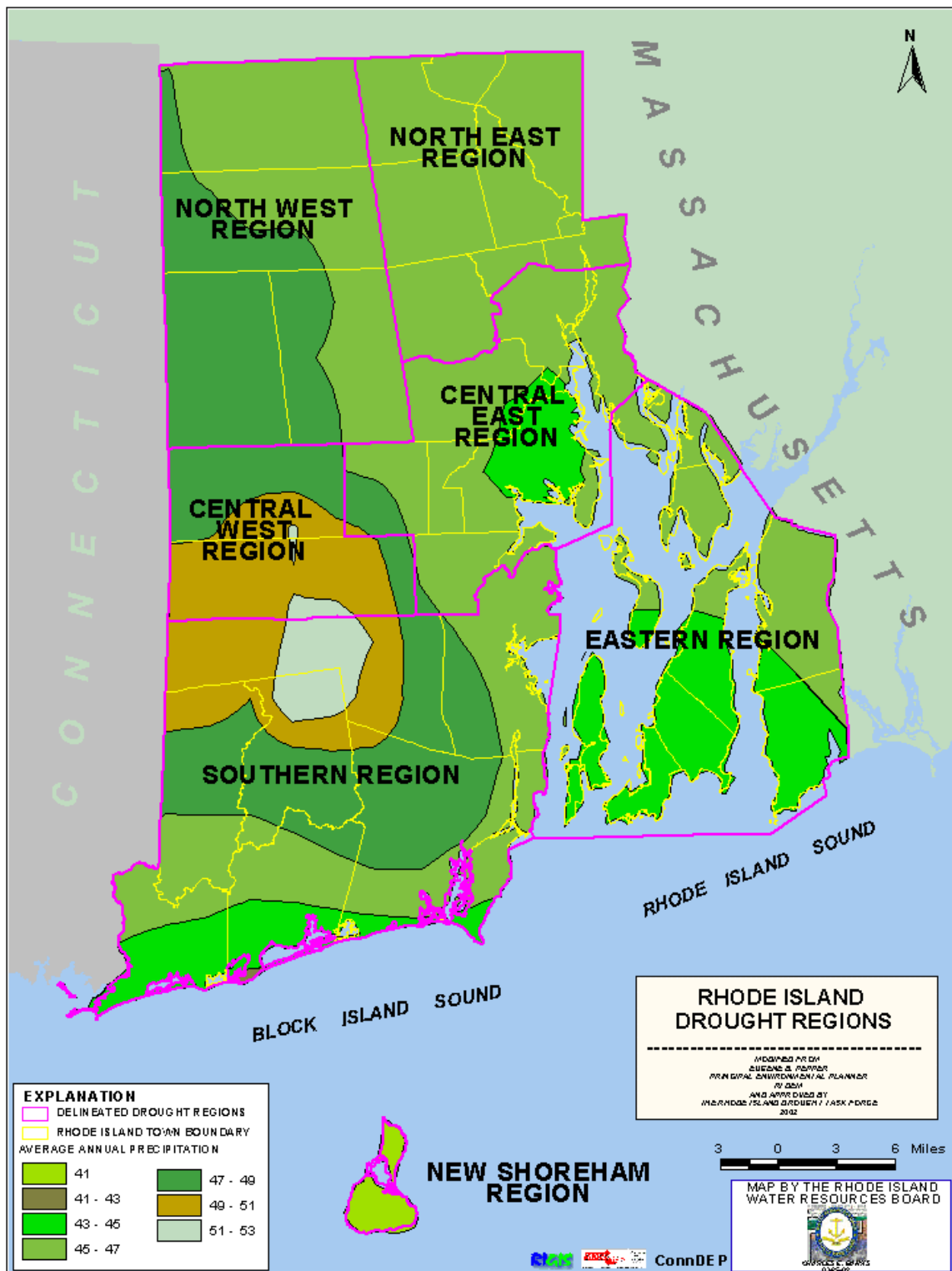
The Plan delineates seven drought-planning regions for the state (see Figure 724-(4), Rhode Island Drought Regions. The Normal, Advisory and Watch phases are issued on a statewide basis. The more severe Warning and Emergency phases are issued on a regional basis, taking into consideration local hydrological conditions, sources of drinking water supplies, and infrastructure considerations.

The Plan identifies the various agencies that can provide information to be used to assess the severity of drought conditions in the state. The Water Resources Board is responsible for assembling the necessary information and providing it to the Drought Steering Committee. The Board is to publish a monthly "Current Conditions Report" which summarizes current water resource conditions, and provides data on ground water levels, surface water, reservoirs, precipitation, stream flow conditions, fire danger, and agricultural conditions.

The Plan establishes responsibilities for coordinated communication of drought response between state and other agencies, with a goal of providing accurate, timely and consistent information to the public. The Water Resources Board is primarily responsible for implementing the Plan and recommending to the Governor the appropriate phases of drought and carrying out the recommended actions of the Drought Steering Committee.

Section 724-04, Implementation: Rhode Island Drought Management Plan identifies the actions to take place during the different phases of drought. The actions start with general information collection and sharing under normal conditions and may culminate in declaration of an emergency situation for severe droughts. All response actions in the early phases of drought will be continued in the later stages of drought as needed. To determine the end of a drought, the two key drought indices, precipitation and ground water levels, should be examined. These two indices have the greatest long-term impact on drought conditions. Precipitation is a key factor because it is the overall cause of improving conditions. The drought phase can only be revised downward to a less severe phase when normal conditions for both precipitation and ground water have been reached for a sustained period of time.

FIGURE 724-(4) RHODE ISLAND DROUGHT REGIONS



03 GOALS

The goals of the Plan are organized into two sections, one for short-term and one for long-term goals. The short-term goals of the Plan are:

D-ST-1. Minimize the effects of drought on public health and safety, economic activity, and environmental resources.

D-ST-2. Preserve the water supply of the state.

The long-term drought goal is to reduce Rhode Island's vulnerability to periods of low precipitation (or long-term drought).